

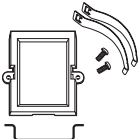
# Low Level Cutoff LLC6 Series Liquid Level Control



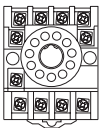
- Designed for Low Level Cutoff Protection
- Energized on Wet Probe
- Fixed Time Delay of 1 ... 60 s
- Sense Resistance of 5K ... 250K  $\Omega$
- 24, 120, or 230 V AC Input Voltage Available
- 10 A, SPDT Relay Contacts

Approvals:

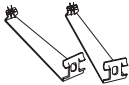
## Accessories



Panel mount kit  
P/N: **BZ1**



11-pin socket  
P/N: **NDS-11**



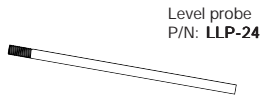
Hold down clips  
P/N: **PSC11**



Electrode with common connection  
P/N: **WCC-1138-3**



Electrode  
P/N: **WCC-1138**



Level probe  
P/N: **LLP-24**

See accessory pages for specifications.

## Description

The LLC6 Series is a plug-in single probe conductive liquid level control designed for low liquid level cutoff protection. It offers a factory fixed time delay of 1 to 60 s and is available in input voltages of 24, 120, or 230 V AC. LED indicator illuminates whenever the LLC6's 10 A SPDT output relay is energized. Available with automatic/manual reset or a special manual reset with power outage feature, which auto resets the unit when power is restored and the water level is acceptable. 24 V AC and 120 V AC units are recognized as limit switches under UL353 (230 V AC units are UL508) and CSA certified under Standard 14.

## Operation

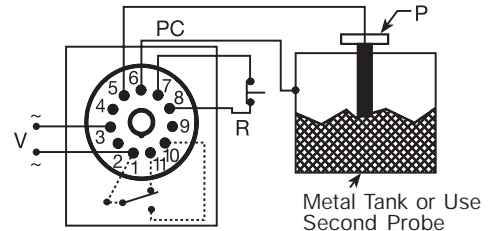
### Automatic Reset (Reset terminals not connected):

When liquid rises to the low level cutoff probe, the output relay and the LED indicator energize. When the liquid falls below low level cutoff probe, the output relay and the LED indicator de-energize after a fixed time delay.

**Manual Reset (Reset switch connected):** When the liquid level falls below the low level probe, the output relay and LED de-energize after a fixed time delay. When the liquid level rises to the low level probe, the output relay and LED indicator remain de-energized until the manual reset switch is opened; then they energize immediately.

**Power Outage Manual Reset (Reset switch connected):** A power outage causes the output relay and LED indicator to de-energize. Upon restoration of power, if the liquid level is above the low level probe, the output relay and LED indicator will re-energize. If the liquid level is below the low level probe, the output relay and LED indicator remain de-energized until the Normally Closed (NC) reset switch is opened.

## Connection



Dashed lines are internal connections.

Connect common to conductive tank. Additional probe is necessary for non-conductive or insulated tanks.

PC = Probe Common P = Probe V = Voltage R = Optional NC Reset Switch

## Ordering Table

LLC6 Series	X Input	X Time Delay (Fixed)	X Sense Resistance	X Reset
-2	24 V AC	Specify Fixed Delay In Seconds [1 ... 60] In 1 S Increments	-F - Fixed Specify Fixed Resistance In Kilohms [5 ... 250] In 1 K increments	-M - Manual/Automatic Reset
-4	120 V AC			-P - Power Outage Manual Reset
-6	230 V AC			

Example P/N: **LLC6410F25M, LLC6640F100P**

# Low Level Cutoff

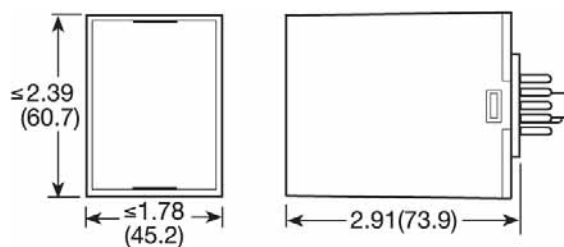
## LLC6 Series

### Liquid Level Control

#### Technical Data

<b>Control</b>		
Type		ON/OFF (Single Level) Resistance sensor with built-in time delay to prevent rapid cycling
Sense Voltage		12 V AC nominal at probe terminals
Sense Resistance		5K ... 250K $\Omega$ factory fixed
Sense Resistance Tolerance		Fixed +/-10%
<b>Time Delay</b>		
Range		1 ... 60 s in 1 s increments
Tolerance		+/-20%
Repeat Accuracy		+/-10%
Time Delay vs. Temperature & Voltage		+/-10%
Power Outage Reset Delay		$\leq$ 1 s
<b>Input</b>		
Voltage		24, 120, or 230 V AC
Tolerance	24 V AC	+20% ... -15%
	120 or 230 V AC	+10% ... -20%
Frequency		50 ... 60 Hz
<b>Output</b>		
Type		Electromechanical relay
Form		Non-isolated (SPDT) contacts
Rating		10 A resistive at 240 V AC; 1/4 hp at 125 V AC; 1/2 hp at 250 V AC
<b>Protection</b>		
Surge		IEEE C62.41-1991 Level A
Isolation Voltage		$\geq$ 2500 V RMS between input & output terminals
<b>Mechanical</b>		
Mounting		Plug-in socket
Termination		11 Pin relay type
Package		2.91 x 2.39 x 1.78 in. (73.9 x 60.7 x 45.2 mm)
<b>Environmental</b>		
Operating Temperature		-40°C ... +60°C
Storage Temperature		-40°C ... +80°C
Humidity		95% relative, non-condensing
Weight		$\cong$ 7.3 oz (207 g)

#### Mechanical View



Inches (Millimeters)